Notice of Allowability	Application No.	Applicant(s)	
	10/501,077	KELLNER ET AL.	
	Examiner	Art Unit	
	Paul C. Martin	1657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *10/16/07*.

2. ☒ The allowed claim(s) is/are *1,5,13-16 and 18*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Sigund Kac on 10/29/07.

The application has been amended as follows:

IN THE SPECIFICATION:

At Page 1, Line 1 insert the following:

This application claims the benefit of priority as a 371 of PCT/EP03/11253 filed 10/10/2003 and EPO (European Patent Office) 02025128.6 filed 11/09/2002.

Amendments to the Brief Description of the Drawings are as follows:

Figure 7: Kinetic analysis of the conversion of DiFMUP by PHP1:

~~a~~A) Increase in fluorescence due to the dephosphorylation of DiFMUP at various substrate concentrations (in pM). The increase in initial fluorescence signal is due to the background fluorescence of unreacted substrate.

~~b~~B) Correlation of relative fluorescence with the concentration of fully converted substrate for quantification purpose.

~~c~~C) Lineweaver-Burk plot of inversed initial rates versus inversed DiFMUP-concentration with linear fit.

~~d~~D) Michaelis-Menten plot of initial reaction velocities versus substrate concentration. The linear correlation does not allow for non-linear curve fit deriving the Michaelis-Menten parameter.

Figure 8: Kinetic analysis of the conversion of FDP by PHP1:
~~a~~A) Increase in fluorescence due to the dephosphorylation of FDP at various substrate concentrations (in µM). The increase in initial fluorescence signal is due to the background fluorescence of unreacted substrate.
~~b~~B) Correlation of relative fluorescence with the concentration of fully converted substrate for quantification purpose.
~~c~~C) Lineweaver-Burk plot of inverse initial rates versus inverse FDP-concentration with linear fit.
~~d~~D) Michaelis-Menten Plot of initial reaction velocities versus substrate concentration. The hyperbola correlation does allow for non-linear: curve fit deriving the Michaelis-Menten parameter.

Figure 11: a) Image of SDS-PAGEs after separation of I) AP, II) PHP1 and III) Lar-PTP (each 5 µg) and subsequent renaturation and soaking with fluorogenic substrates (ELF®39 phosphate and ELF®97 phosphate). The first lane was loaded with pre-stained protein marker, that exhibits auto-fluorescence.

b) Image of Western blots corresponding to the SDS-PAGEs shown in Fig. 8~~a~~A) after separation of a) AP, b) PHP1 and c) Lar-PTP (each 5µg) and subsequent renaturation and soaking with fluorogenic substrates (ELF®39 phosphate and ELF®97 phosphate). The first lane was loaded with prestained protein marker, that exhibits auto-fluorescence.

IN THE CLAIMS:

Cancel Claims 6, 7, 11 and 12.

Claims 1, 5, 13-16 and 18 are allowed.

Claim 5. A method for the identification of an inhibitor or activator of ~~a phosphoamidase or~~ protein phosphoamidase PHP1 enzyme comprising:

a) establishing a sample comprising ~~the phosphoamidase or~~ protein phosphoamidase PHP1 enzyme and a test substance,

b) administering a substrate which is FDP, DDAO, DiFMUP, ELF®39 phosphate or ELF®97 phosphate to the sample,

c) detecting the signal produced by the hydrolysis of the phospho-ester bond (P-O) of the substrate, and

d) identifying the test substance as an activator or inhibitor of the PHP1 protein phosphoamidase by comparing the signal produced in the sample comprising the test substance with the signal produced in a control sample comprising no test substance.

Claim 13. A method of claim 1, wherein said method ~~which~~ is conducted in liquid phase, semi-solid phase, or solid phase.

Claim 14. A method of claim 5, wherein said method ~~which~~ is conducted in liquid phase, semi-solid phase, or solid phase.

Claim 15. A method of claim ~~1~~ 13 wherein said liquid phase is buffer-based, said semi-solid phase is gel-based, and said solid phase is blot-based.

Claim 16. A method of claim ~~5~~ 14 wherein said liquid phase is buffer-based, said semi-solid phase is gel-based, and said solid phase is blot-based.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul C. Martin whose telephone number is 571-272-3348. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon Weber can be reached on 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Paul Martin
Examiner
Art Unit 1657

10/22/07

JON WEBER
SUPERVISORY PATENT EXAMINER